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MOVE AHEAD!

Research Careers in the Forest Service

U.S. Department of Agriculture

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Forestry Research

Man's knowledge of his environment and his interrelationship with Nature has grown tremendously in the past 60 years.

Basic to this continuing search for Man's place and responsibilities in a rapidly changing world is research by well-trained and inquisitive minds.

In Forestry, the challenge is great — the rewards are substantial.

If your training is in the sciences and you are searching for a meaningful career, we suggest that you explore the opportunities open to you in the Forest Service of the U.S. Department of Agriculture.

George M. Jemison
Deputy Chief for Research
Forest Service, USDA

Miscellaneous Publication No. 1109
November 1968

About The Forest Service...

As our Nation grows, people expect and need more from their forests — more timber; more water, fish and wildlife; more recreation and natural beauty; more special forest products and forage. The Forest Service of the U.S. Department of Agriculture helps to fulfill these expectations and needs through three major activities:

Conducting forest and range research at over 75 locations extending from Puerto Rico to Alaska and Hawaii.

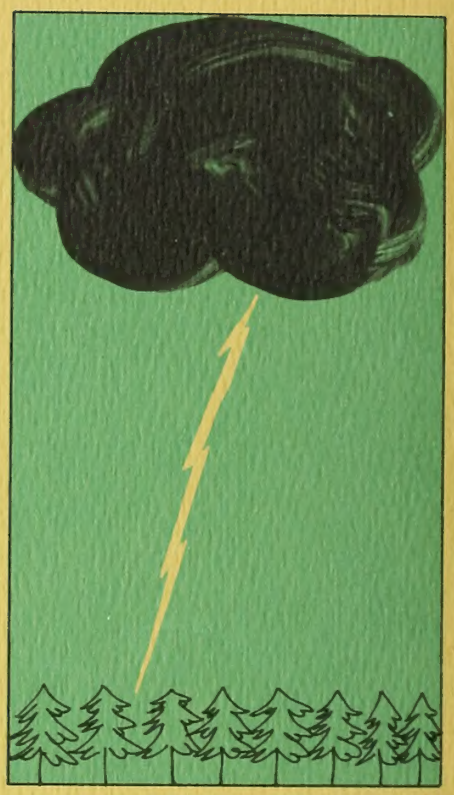
Participating with all State forestry agencies in cooperative programs to protect, improve, and wisely use our country's 395 million acres of State, local, and private forest lands.

Managing and protecting the 187-million-acre National Forest System.

The Forest Service does this by encouraging use of the new knowledge that research scientists develop, by setting an example in managing the National Forests and Grasslands for multiple use purposes, and by cooperating with all States and with private citizens in their efforts to achieve better management, protection, and use of forest resources.

Traditionally, Forest Service people have been an active part of the communities and towns in which they live and work. They strive to secure continuous benefits for all, from the country's forest resources.

For more than 60 years, the Forest Service has been serving the Nation as a leading forest conservation agency.



Forestry Research Is Moving Ahead

The aim of research is to produce beneficial change. The mission of the Research Branch of the Forest Service is to supply the knowledge needed to improve management and use on all U.S. forests and rangelands — their products and recreational and esthetic benefits — whether public or private.

During the past 40 years, research has served the Nation well by keeping forestry abreast of the people's needs. Now, though, with the national population growing rapidly and altering its living habits just as fast, we are looking more for ways to meet the needs of the future. Research itself is changing. Many of today's problems require sophisticated techniques and complicated equipment. In many lines, detailed analysis must precede any attempt at synthesis. These shifts demand new skills in research personnel. Until about a decade ago, most Forest Service researchers were graduates of forestry schools. Today most of those coming on the job have specialized training in a basic science or in engineering.

To illustrate the nature of the tasks and the skills required, here is a partial list of what Forest Service Research hopes to achieve in coming years:

Increase the growth efficiency of individual trees and forage plants by applying the principles of genetics and physiology.

Through weather modification, prevent lightning-caused forest fires and increase the productivity of forests and ranges.

Improve techniques and reduce costs of "remote sensing" the presence, characteristics, and damage of forest fires, pests, and other destructive agents.

Develop improved techniques for rehabilitating eroding land, preventing floods, improving aquatic habitats and water supplies, and restoring landscape beauty.

Provide technical information that will help rural communities develop and compete for forestry-based jobs and industries. By economic analyses and forest resource surveys, support programs to improve rural housing.

Provide knowledge for protecting and improving forest and range watersheds to assure abundant water of high quality, in combination with increased opportunities

for outdoor recreation and for production of timber, game, and fish.

Devise ways of eliminating air, water, and soil pollution through improved forestry activities.

Learn how to control forest pests without contaminating the environment or upsetting natural communities of plants and animals.

Solve the socio-economic and ecologic problems of recreation on public and private forest and range lands.

Devise feasible geographic patterns of wildlife habitats that can serve people of all economic levels.

Determine the requirements for improving and maintaining the esthetic qualities of forest landscapes and rural communities through management of forest environments.

Provide the scientific knowledge needed to raise the productive capacity of forests to meet domestic needs and improve the United States position in world trade.

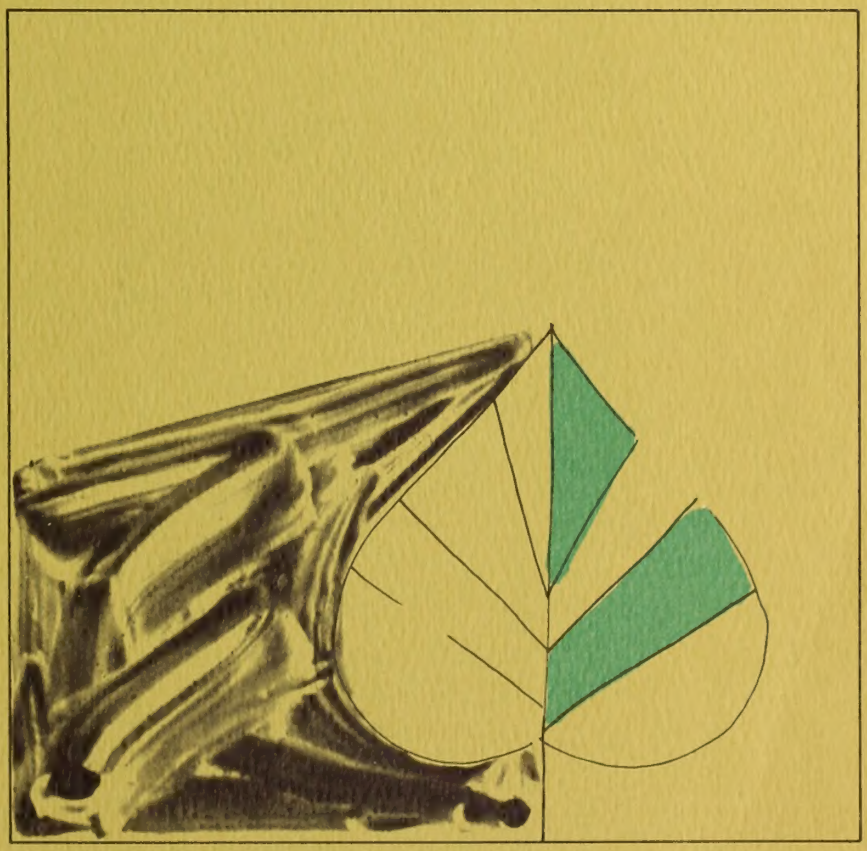
Develop new and improved forest products that are of high serviceability and are suited to the needs and wants of consumers.

Provide knowledge that will assure a fair and open marketing and distribution system for forest products.

Would you like to have a part in achieving one or more of these goals? Many of your fellow scientists will. You, too, can be "on the team" if you choose.

The goals are national and hence broad. Their achievement will usually require work in several lines of research, often in several parts of the country. Such subdivision of effort provides clear assignments of responsibility, keeps each team's mission within manageable proportions, and recognizes regional variations in forest management and use.

Quite clearly, achievement of such goals will require talents of specialists in many sciences. At present some 80 scientific specialties are represented in the Service. In nearly all of them, some new employees must be recruited each year. The needs are particularly great for researchers in *economics, sociology, pathology, entomology, fire physics, hydrology* and *watershed management, wildlife habitat,* and *plant physiology*. No less needed are *biochemists, physicists,* and *engineers* interested in forest products technology.



Your Research Career With The Forest Service

Basic Requirements? Interest, ability, and basic training in a science — these are the requirements. The Forest Service is actively recruiting new graduates with bachelor's or master's degrees who can develop on the job and perhaps acquire more advanced degrees as they work. It also welcomes men and women whose academic training and research experience fit them for present positions of initiative and responsibility. If either description fits you, you may qualify for a position on the Forest Service research staff.

Liberal Benefits? Security, adequate compensation, recognition, advancement, and more accrue to the research scientists in the Forest Service. Starting salaries depend upon educational background and research experience. They are competitive with private industry. Substantial salary increases based on longevity, experience, and added responsibilities are frequent. Additional benefits include:

Paid Vacations — From 2½ to 5 weeks depending on length of service

Paid National Holidays

Training opportunities—The Government Employees Training Act includes many flexible provisions that keep professional and technical staff abreast of rapidly changing developments.

Liberal Retirement Benefits

Low Cost Health Insurance — With substantial coverage for you and family

Low Cost Group Life Insurance

Paid Sick Leave

Job Injury Compensation

Promotion by Merit System

Active Training and Executive Development Programs

Monetary Awards for Work-improvement Suggestions

Paid Leave for Military Reserve Personnel

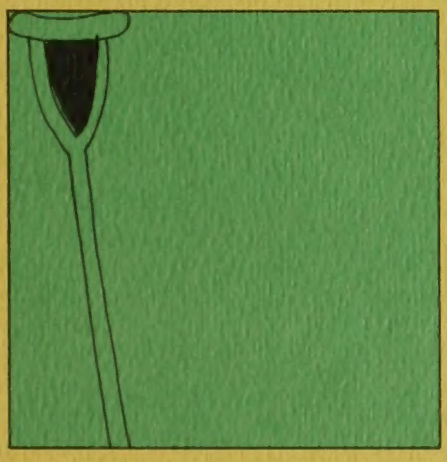
Equal Opportunity Employment

Choice Job Locations? In research, as well as in its other activities, the Forest Service is decentralized, with much responsibility delegated to field units. Headquarters are in Washington, D.C., but most of the re-

search is assigned to eight regional Forest Experiment Stations, the Forest Products Laboratory, and The Institute of Tropical Forestry (see map). Every Station in turn maintains several field centers, over 75 in all, each located close to the forestry situation it is assigned to study. Though an increasing proportion of research is done in laboratories, ready access to the forest itself is a necessity for most work.

Three-fourths of these field centers are on or near college or university campuses where cooperative research can be pursued or where additional training can be taken. Scientists at many locations have faculty recognition and participate in the training of undergraduate and graduate students.

Modern Research Facilities? Construction of new laboratories is underway or has recently been completed at 45 field locations. New construction or additional facilities are planned at 54 locations. Our scientists are well backed up by professional assistants, technicians, aides, secretaries, equipment, and supplies. Biometricians help design and analyze studies, and plan and procure electronic data processing. Through libraries of the regional Experiment Stations, all scientists have access to the National Agricultural Library and other information sources. A researcher can obtain a copy of virtually any publication he wants. Some reference and bibliographic services are also provided.

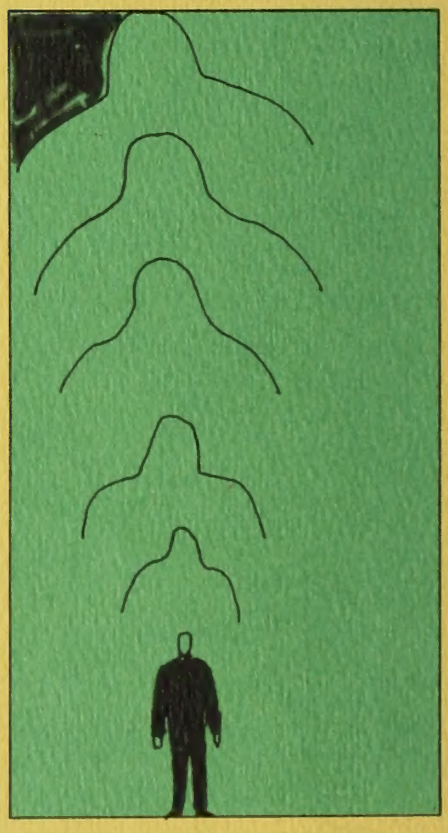


Room To Grow

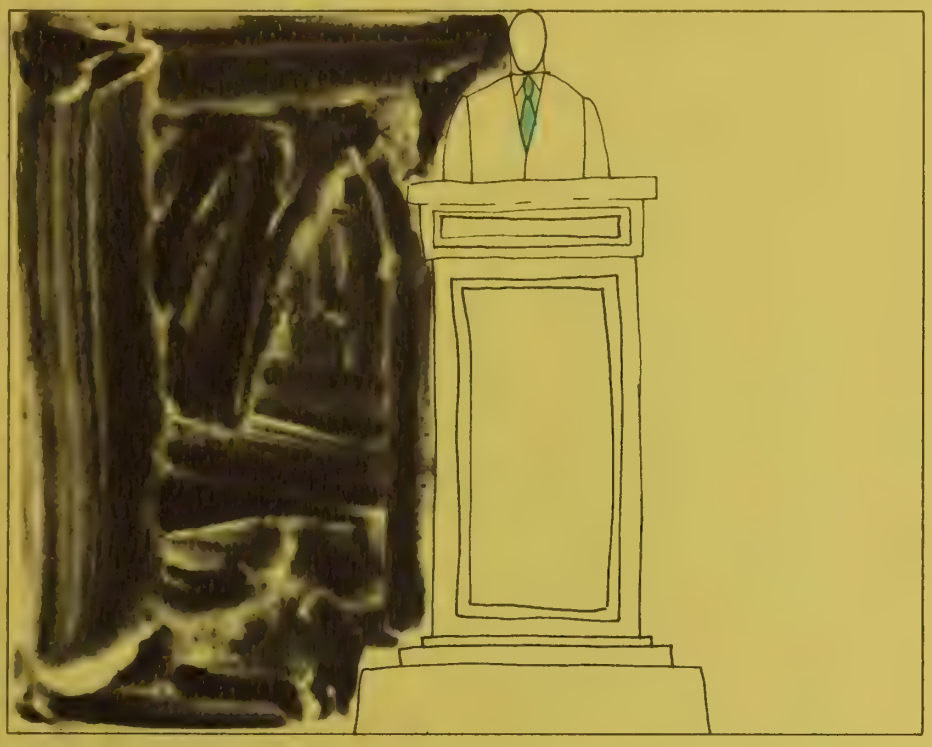
Your career with the Forest Service can be as dynamic as you care to make it. Here you will find continuous opportunity for self development and advancement. The young scientist who produces results will discover ever-broadening horizons before him. As a member of a small scientific team, his individual achievements will be more easily identified and recognized.

The researchers publish their data in the journals of their specialties, in the several journals devoted to forest science or wood technology, and in the series of publications issued by the Forest Service and the Department of Agriculture. Publication and reprint costs are borne by the Service, and editorial and illustrative skills are available as needed.

Opportunities are provided for meetings with fellow scientists in the Service. Outside associations, including membership in scientific societies, are encouraged. A scientist who travels to a national meeting of his society to serve as an officer or to present a paper does so on official time and with his expenses paid.



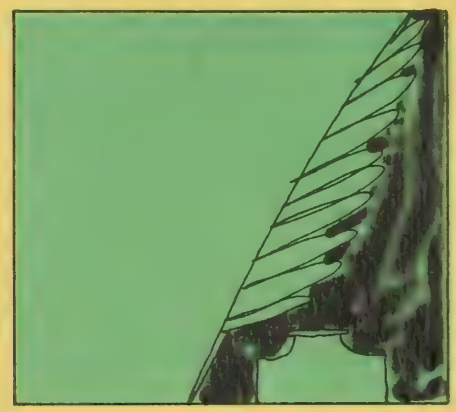
To young scientists, the Service offers the opportunity of working with men who have achieved national or international reputations. To all, it extends a wide variety of advanced training in basic or special skills. About one out of five of the professionals undertake some additional formal training each year, many of them working toward advanced degrees. Those who strive for degrees often find that the research they do on their jobs is acceptable to their university as a dissertation topic.



Think It Over

The Forest Service endeavors to maintain a working climate in which the live-wire scientist thrives. If you are concerned about the Nation's natural resources — If you want to participate in the quest for the new knowledge that will shape the course of your generation and those to follow — Then *Move Ahead.* Join the Forest Service.

For more information, write to:
Deputy Chief for Research
Forest Service
U.S. Department of Agriculture
Washington, D.C. 20250



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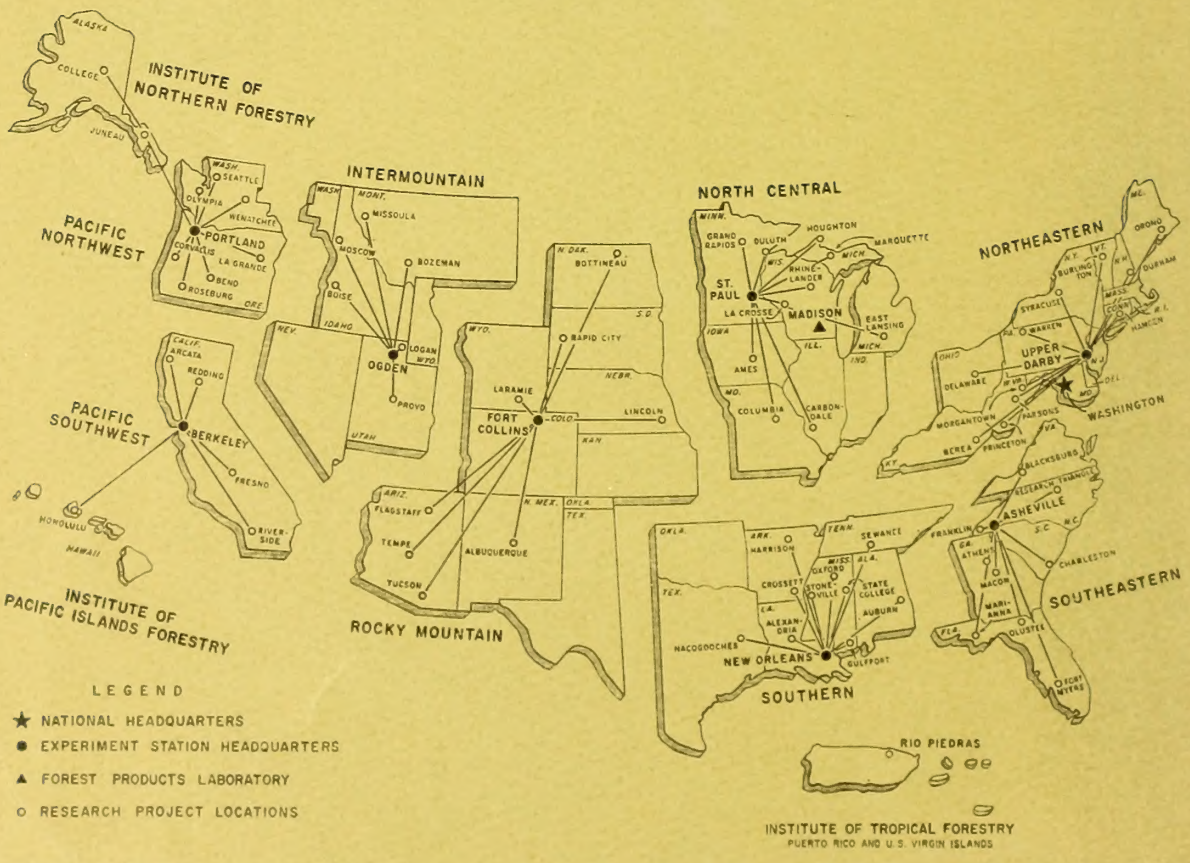
The paper in this publication contains a large amount of hardwood fibers. This paper represents a significant breakthrough in wood utilization research. Until recently no satisfactory pulping method was known for the use of hardwoods. But through cooperative research, the Forest Service and private industry have developed a new process by which hardwoods can be used in papermaking.